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STATISTICAL BULLETIN
Metropolitan Life Insurance Co.

VOL. I. DECEMBER, 1920. No. 12.

ALL-AMERICA CONFERENCE ON VENEREAL DISEASES

No less a clinician than Osler in his later writings considered syphilis one of the leading, if not the leading cause of death. Other authorities who have busied themselves with the study of this disease have come to a similar conclusion. This question must be settled finally by future research, but, even without exact data, it must be clear that the disease exacts a very heavy toll of life. Gonorrhea, if less fatal than syphilis, is much more prevalent. It is a very extensive cause of disability. Together, the two venereal diseases loom large in the work of the health officer. This is now universally recognized.

The great obstacles in the way of venereal disease control are first, the lack of trained personnel to handle the complex problems involved and second, the absence of a clear-cut and authoritative programme which represents the best judgment of experts in the field.

To meet the first difficulty, that is, the need for trained workers all over the country and, in fact, over the entire Western Hemisphere, the United States Public Health Service conducted an Institute on Venereal Disease Control and Social Hygiene in Washington, November 22d to December 4th. The Institute brought together well over six hundred earnest students who received specialized instruction in the various phases of the venereal disease problem. These included general practitioners, specialists in genito-urinary diseases, social workers, court and probation officers, institutional managers and others who will go back to their respective communities to carry out the important lessons they have learned. The second difficulty was met by the All-America Conference on Venereal Diseases, which immediately followed the Institute during the week of December 6th. This had for its purpose, to review past efforts in the field, to evaluate the work done and to establish a basic pro-

gramme which might profitably be followed during the next few years by all the agencies in the campaign. Dr. Welch of the Johns Hopkins University presided. The Conference was well attended. A general committee of about one hundred specialists was divided into twelve groups, each of which considered a special phase of the Conference work, such as medical research, diagnosis and treatment, administration, statistics, law enforcement, protective social measures, etc. Their conclusions were presented to the delegates for discussion and adoption. All present must have been impressed by the well-considered plan of the Conference, the excellence of its management, the earnestness of the delegates, as well as the great value of the conclusions finally adopted.

Emphasis was placed upon the deliberations of the statistical group. Everyone appeared to realize that a new stage in the venereal disease campaign had been reached. There is no longer any room in the campaign for propaganda based upon unscientific and untrustworthy premises. Hereafter, the work must be founded on facts beyond criticism. To the statistical group, therefore, was referred such questions as the prevalence of the venereal diseases in the community at large, the extent to which these diseases bring about death, the attendant economic losses and all that pertains to the measurement of the venereal disease problem.

In spite of the most earnest efforts on the part of the statistical delegates, it was quite impossible to answer definitely the questions raised. Reliable data were not available to answer even the simple question of venereal disease prevalence, although everyone realized how widely disseminated these diseases were. The principal resolutions of the committee dealt, therefore, with the necessity and suggested means for gathering real information, in order that the next conference may deal with facts rather than with impressions. It was recommended that a committee of statisticians be appointed, whose function it would be to pass upon all important statistical conclusions before these are disseminated widely by the various associations interested in prevention of the venereal diseases. The committee recommended the more general use of the Wasserman reaction, the postmortem examination of tissues and other means which would result in the more accurate diagnosis of disease. It was also recommended that a co-operative study be made which would ultimately determine the extent to which the venereal diseases, especially syphilis, are responsible for deaths reported as due to congenital debility, organic diseases of the heart, arteriosclerosis, angina pectoris, aneurism, etc. Such a study should make it possible ultimately to ascertain approximately the true death rate of syphilis.

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An interesting discussion centered around the desirability of obtaining confidential reports from physicians when death of a patient results from a venereal disease. No final conclusion was drawn on this subject because of the difference of opinion among the delegates. The chief objection to this plan is, obviously, that it introduces a new element into American registration which has insisted throughout its entire history that physicians make complete and true reports in their death certificates. A confidential certificate, in addition to the one now required by law, implies that the latter is untrue. Such a procedure might encourage physicians to take the whole matter of certification less seriously. It was also pointed out that even if such a plan were desirable, it would be at this time quite impracticable, because it would require the revision of the registration laws in each of the states and this would be a source of the greatest danger to the cause of registration. It was thought that more could be obtained, perhaps, through a campaign of education which would point out to physicians the tremendous importance of the venereal diseases and secure their support for complete and true statements of the cause of death in all cases. The consensus of opinion appeared to be that the community interest must take precedence over the very natural impulse of physicians to shield their patients and families from what some might consider distasteful and painful facts. The confidential reporting method, even if it resulted temporarily in a larger number of reported deaths from syphilis, would cost too much if it impaired registration practice generally or if it fastened upon the venereal disease campaign the idea that these conditions must forever remain secret and not subject to discussion and record, as are the other communicable diseases. The motive underlying the campaign of the last twenty years has been to break down the notion that there is any essential difference between these diseases and the others which make up the whole public health problem.

FEWER HOMICIDES DURING 1920

In spite of the so-called "crime wave" which in certain cities has assumed so prominent a place in the public press during recent weeks, the year 1920 will probably be the most favorable one on record for homicide among insured wage-earners. In the Industrial Department of this Company, the death rate for this cause for the period January 1st to December 18, 1920, reached the comparatively low level of 5.5 per 100,000. This is a decline of over 20 per cent. from the rate for 1919, which was 6.9. These insurance figures nearly always reflect conditions in the total population of the United

States and of Canada and we may, therefore, expect that one of the features in the good general mortality record of 1920 will be a low homicide rate.

Only one month, namely, September of this year, shows a mortality record from this cause of death (8.4 per 100,000) which was equal to or exceeded that for the year 1919 (6.9 per 100,000). Since September, the rate has progressively declined. The present "crime wave," with murder as its chief element, has apparently been confined to a few localities and to a very short period. It is not likely to affect seriously the homicide figures for the whole country and for the whole year.

NUTRITION OF WAGE-EARNERS DURING AND AFTER THE WAR IN RELATION TO PELLAGRA MORTALITY

Recent studies of the United States Public Health Service appear to have shown that in the South low family income and the unavailability of certain food supplies are the chief factors influencing pellagra incidence among wage-earning groups.* Such conclusions are apparently consistent with the conditions found to prevail among the wage-earners insured in this Company. In a study of pellagra mortality in the Industrial Department of this Company for the years 1911 to 1916,** it was shown that the adverse economic situation in the South late in 1914 and early in 1915 was accompanied shortly thereafter by a marked increase in the pellagra death rate. In 1916, when business conditions in the South improved, the death rate from pellagra dropped. The more recent data of the Industrial Department show, however, that in 1917 and in 1918 the pellagra death rate rose over the 1916 figure. This increase was observed both for males and for females and among both white and colored groups. It should be recalled that during these latter years there was a marked shrinkage in the purchasing power of the dollar and that wage increases had not as yet occurred to the extent of offsetting the decline in the goods value of money. Nor had sufficient time elapsed since the wage adjustments of 1917 and 1918 to affect the pellagra rates of those years. By the spring of 1919, however, the 100 per cent. or greater increase in wages of cotton mill operatives, plus steady employment, must have had a beneficent effect upon family dietaries. For the whole of 1919, the pellagra

* Goldberger, Joseph; Wheeler, G. A.; and Sydenstricker, Edgar. "Economic Factors in Pellagra Incidence," United States Public Health Reports, November 12, 1920, p. 2673.

** "Mortality Statistics of Insured Wage-Earners and Their Families," Metropolitan Life Insurance Company, 1919, p. 255.

death rate was as low as 2.3 per 100,000, or 66 per cent. below the high rate in 1915, and 36 per cent. under the 1916 and 1911 rates.

It will be of great interest to observe whether the present economic depression involving workers in the cotton-textile industries will bring about, through restriction of family diet, another increase in the pellagra death rate. Much weight must be given to the explanation offered by the United States Public Health Service, if a high degree of association is established between pellagra mortality and an index of economic welfare in the pellagra areas. Due allowance must be made, of course, for the "lag" between the point of maximum incidence of the disease and the point of maximum business depression. In order that students of the problem may be able to relate data on the economic welfare of the southern wage-earner to the facts of pellagra mortality, the following table is quoted:

DEATH RATES PER 100,000 FROM PELLAGRA—BY COLOR AND SEX FOR SINGLE CALENDAR YEARS, 1911 TO 1919—METROPOLITAN LIFE INSURANCE COMPANY—INDUSTRIAL DEPARTMENT.

YEAR	PERSONS	WHITE		COLORED	
		Males	Females	Males	Females
1919	2.3	.8	2.0	3.5	12.7
1918	4.5	1.7	4.0	7.4	22.8
1917	4.1	1.5	3.5	5.8	22.2
1916	3.6	1.4	2.7	6.2	22.4
1915	6.7	2.1	5.9	12.2	36.6
1914	5.3	2.2	4.7	6.9	26.7
1913	3.3	1.3	3.4	4.6	13.1
1912	2.8	1.2	2.6	4.1	12.5
1911	3.6	1.7	4.1	3.4	10.5

COMMUNITY LOSS FROM ACCIDENTS

Males lose from one and one-half to one and three-quarters years in life expectancy because of accidents. White males have the greater loss in after-lifetime, one and three-quarters years; colored males the lesser, one and one-half years. Females, both white and colored, lose about two-thirds of a year each. The accident loss in expectation among white and colored males is only slightly less than that from heart disease.

Males are, of course, exposed to greater accident hazards in industry and make more use of transportation and other facilities involving hazard than do females. These factors account for the

difference of one year ot loss in life expectancy between males and females. In a previous study we found that practically one-third of the fatal accidents to white males arose from conditions in industry. The following table gives the facts of loss in life expectation at selected ages:

NUMBER OF YEARS OF AVERAGE AFTER-LIFETIME LOST ON ACCOUNT OF ACCIDENTS—METROPOLITAN LIFE INSURANCE COMPANY—INDUSTRIAL DEPARTMENT—1911 TO 1916.

AGE	WHITE		COLORED	
	Male	Female	Male	Female
0	1.74	.64	1.50	.65
1	1.90	.64	1.64	.63
2	1.88	.58	1.62	.58
3	1.83	.54	1.54	.52
4	1.79	.49	1.49	.44
5	1.74	.46	1.43	.37
15	1.49	.37	1.21	.28
25	1.20	.38	.86	.25
35	.93	.34	.62	.21
45	.66	.30	.45	.20
55	.45	.27	.31	.18
65	.29	.24	.20	.15
75	.21	.22	.15	.13
85	.19	.21	.13	.11
95	.16	.21	.04	.07

The greatest loss in expectancy takes place between ages one and two years; at this point the effect of the industrial, domestic, sports and recreation and public liability hazards for the whole range of life seems to be concentrated. It should be recalled that there is a heavy accident mortality among children under five years of age, especially from burns, and among children of school age from drowning, falls and burns. After school life the stresses of occupation in industrial pursuits become manifest. At age twenty-five, white males lose 1.20 years of after-lifetime and colored males nearly one year. The losses among males decrease with advancing age and approach at about age 75 the figures for females. Among white females the losses in life expectancy between ages twenty and fifty are practically uniform, with not much variation from a figure of about one-third of a year. This reflects, perhaps, the hazards of domestic life, falls and burns mostly, at a time when women are most actively engaged in home duties.

THE INFLUENZA PROSPECT

Public health students are interested in the prospect of a recrudescence of influenza this winter or next spring. According to Dr. John Brownlee in the *London Lancet,* November 8, 1919, influenza epidemics seem to recur at intervals of 33 weeks, provided the thirty-third week does not fall between June and December. In that event the recurrence would be expected at the end of 66 weeks or 99 weeks. Dr. Brownlee's conclusion was based upon a careful study of influenza epidemics in the past. The epidemic early in 1920 occurred approximately 66 weeks after the invasion of 1918. Applying the formula given by Dr. Brownlee to data of the year 1920, it would seem that another interval of 66 weeks may be expected to elapse since the peak date of the 1920 epidemic, before another outbreak of similar character occurs. This calculation places the date of probable peak incidence of the next epidemic at or about April 15, 1921. It will be of interest to health officers to test the Brownlee hypothesis of 33, 66 or 99 week cycles in influenza by the data of this winter and the coming spring.

HIGHER MATERNAL MORTALITY DURING 1920

The unfavorable trend of mortality from puerperal diseases during 1920, to which we have directed attention in previous BULLETINS, has prompted the Company to communicate the facts for the year to the leading obstetricians of the country and to health officers especially interested in maternal welfare. It is hoped that through this inquiry of specialists acquainted with actual field conditions some facts may be gathered which will explain the high death rate in childbirth this year.

Not only has there been a high mortality from accidents of pregnancy during the influenza period, January to March of this year, but for each of the first three quarters, from January to September, there was a heavier death rate from puerperal sepsis and from puerperal albuminuria and convulsions. The facts are shown in tabular form in our BULLETINS for May, August and November.

The summer death rates of 1920 are of especial interest. For white persons this summer (July to September) for all puerperal diseases there was an increase of 5 points per 100,000 over the corresponding figures for 1919; the group of colored persons registered an increase of 1.4 points per 100,000. Puerperal septicemia among white persons registered a death rate three points per 100,000 in excess of the summer rate of 1919. There was an increase also in puerperal albuminuria and convulsions.

Any increase at all in puerperal mortality is disappointing because of the increased emphasis which has been placed in recent years upon better obstetrical service, upon advice to and care of expectant mothers and upon the control of midwifery by public and private agencies. The situation warrants close inquiry by health officers, maternal welfare workers, heads of obstetrical services in hospitals and executives of visiting nursing associations into the field conditions which have produced the higher 1920 mortality from two preventable conditions—sepsis and eclampsia in childbirth. Workers in obstetrics and maternity nursing, and others, are invited to send in their observations in order that the facts may be consolidated and then given to the whole group through this BULLETIN or by other publications.

HEALTH RECORD OF NOVEMBER, 1920

The death rate during November continued exceedingly low, although a very slight increase is in evidence as compared with October. The general health situation over the country remains favorable.

The outstanding feature in the health record of the month is the remarkably low rate for tuberculosis, namely, 109.7 per 100,000 exposed. This marks a new minimum for this disease in the experience of the Industrial Department of this Company. The lowest figure for any prior month was that for September of this year—111.3 per 100,000. Pronounced declines were also registered in November for diarrheal diseases and for diseases incidental to pregnancy and childbirth.

These decreases were a little more than counterbalanced, however, by increased mortality from other important diseases shown in the table on page 11. The diphtheria situation is becoming increasingly serious. We recorded no less than 333 deaths from this disease during November, with a death rate of 30.4—an increase of 38 per cent. over October. Scarlet fever is also becoming prominent. Seventy-five fatal cases were recorded during November, or about two and one-half times the number shown for October. Deaths from organic heart disease also increased. A higher pneumonia rate is expected during the late fall and our figures show a sharp rise. The increase was from 37.9 in October to 51.9 in November, or 37 per cent. A decrease was expected in automobile fatalities. The rate rose, however, from 13.9 in October to 14.5 in November.

Reports from various parts of the country show that our figures reflect accurately the general health situation. The general death

rate for the large cities of the United States this month was 11.8 per 1,000 population. This is also a little higher than that for the previous month, but is slightly lower than that for the corresponding month of 1919, which was 11.9. The per cent. of deaths of children under one year dropped from 17.3 in October to 14.6 in November.

The unfavorable diphtheria situation is shown by announcements of health officials from different sections of the country. Cases are reported in large numbers. During the week ended November 20th, 367 were reported from Chicago and 105 additional ones in other parts of Illinois. The State of Kansas announced a steady increase during the month. In Connecticut, there is much sickness from this disease. A rise is also noted in New York City. At Locust Point, Maryland, 45 houses were under quarantine at the same time.

Cases of scarlet fever, smallpox and whooping cough were also reported in large numbers during November. Of these three diseases, it is smallpox that commands the greatest interest at this time. This disease is reported as spreading rapidly in Indiana and California. In the latter state, there were 149 cases for the week ended November 20th, as compared with 96 during the preceding week. In Tiffin, Ohio, more than half of the public schools were closed, owing to an epidemic of this disease. In the beginning of the month, a serious epidemic was reported from Unalaska.

The general typhoid situation seems to be improved. In the Metropolitan experience, the November rate was 9.0, as compared with 10.6 in October and 10.9 in September. We referred last month to the epidemic in Salem, Ohio. This was apparently due to sewage which entered the town water supply, owing to a leak in the system. More than 6,000 cases of enteritis, as well as about 800 cases of typhoid resulted. During the week ended November 6th, 45 cases of typhoid fever were reported from Hillsdale, Michigan. This outbreak was traced to milk delivered by a dealer afflicted with the disease.

The eighteenth case of bubonic plague at Galveston, since the discovery of the disease in June, was registered November 13th. The Commissioner of Public Health in Massachusetts has requested an appropriation of $25,000 for plague preventive measures in the seaports. The Commissioner of Health of New York City has urged plague protective measures.

Scattered cases of acute poliomyelitis were reported during the month from Illinois. Ten have been reported from Ravalli County,

Montana, since September, four of these within a recent week. During a period of 5 weeks ended October 25th, there were 26 reports of poliomyelitis from Winnipeg, Canada.

The outstanding reports from various countries are as follows: Influenza is assuming some importance at Hong Kong, China, and in the Union of South Africa. An outbreak of cholera, with a mortality of 33.3 per cent. was reported September 29th from Shanghai. This scourge is adding to the general distress of famine-stricken China and the number of suicides is increasing. Under date of October 18th, cholera was reported at Buczacz, Galicia. During the period August 22d to September 20th, there were 548 cases of cholera with 378 deaths at Formosa, Japan. This disease was also present at Vilna and Grodno, Russia, and at Warsaw, Poland, during October. Yellow fever is now under control according to advices received from the city of Sonora, Mexico. There were 112 cases and 59 deaths at Tampico during the period August 26th to October 27th. In Jamaica, 529 cases of alastrim or Kaffir-pox, were reported during the week of October 16th.

Various countries have instituted disease prevention campaigns. Under date of August 24th, a vigorous campaign against hookworm infection was said to be in progress in Australia. One against the mosquito was organized in August at Singapore, Straits Settlement. The President of Colombia has ordered that vigorous steps be taken leading toward the extermination of mosquitoes, with a view to the prevention of yellow fever and malaria in that country. Anti-tuberculosis measures throughout Brazil have been initiated by the Brazilian Red Cross.

The following table gives the mortality data of the Industrial Department of this Company for the months of October and November, 1920, and for the whole year 1919:

METROPOLITAN LIFE INSURANCE COMPANY

Death Rates per 100,000 for Principal Causes, Premium-paying Business in Industrial Department.

MONTHS OF OCTOBER AND NOVEMBER, 1920.

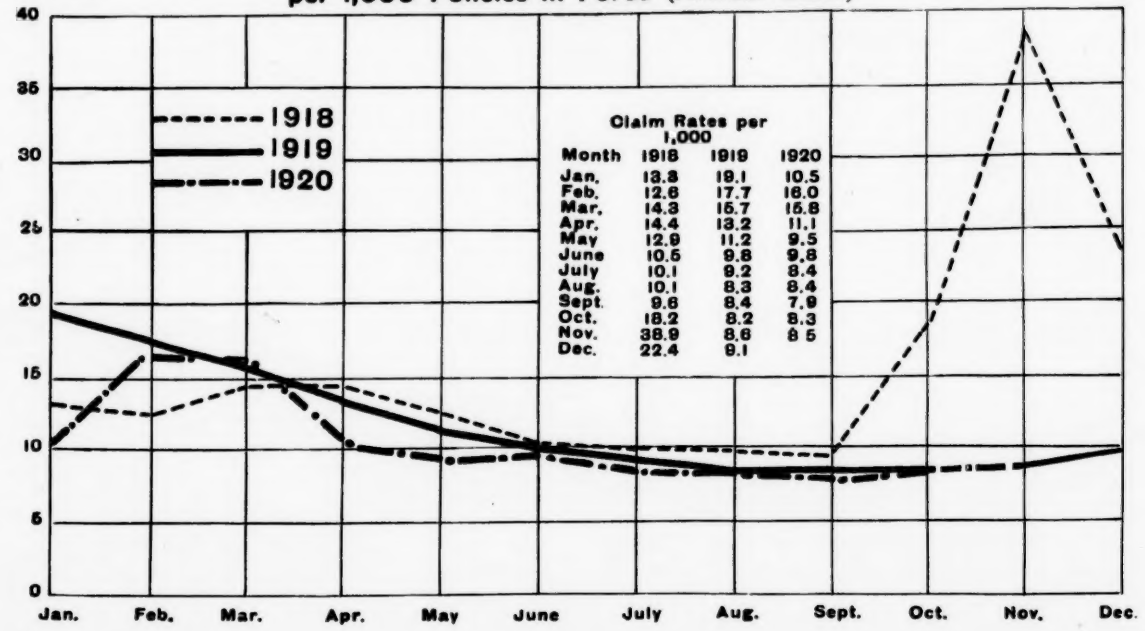
CAUSE OF DEATH	RATE PER 100,000 LIVES EXPOSED		
	Nov. 1920	Oct.. 1920	Year 1919
TOTAL—ALL CAUSES	813.7	793.7	1,063.0
Typhoid fever	9.0	10.6	7.3
Measles	2.1	1.2	3.5
Scarlet fever	6.8	2.7	3.9
Whooping cough	2.6	4.9	3.2
Diphtheria	30.4	22.1	20.9
Influenza	5.5	5.6	96.9
Tuberculosis (all forms)	109.7	115.1	156.5
Cancer	67.7	71.9	67.0
Meningitis (all forms)	4.0	4.4	6.4
Cerebral hemorrhage	54.8	50.6	59.8
Organic diseases of heart	101.6	94.2	113.9
Pneumonia (all forms)	51.9	37.9	117.2
Other respiratory diseases	14.6	12.1	17.0
Diarrhea and enteritis	14.3	22.2	16.9
Bright's disease	63.0	61.7	73.5
Puerperal state	14.9	17.2	20.0
Suicides	5.8	6.8	6.8
Homicides	5.1	6.4	6.9
Other external causes (excluding suicides and homicides)	58.9	56.4	80.4
Traumatism by automobile	14.5	13.9	10.7
War deaths	.4	.1	16.6
All other causes	191.0	189.8	184.9

Correspondence on the subjects discussed in these BULLETINS may be addressed to the Editor:

STATISTICAL BULLETIN,
Metropolitan Life Insurance Company,
1 Madison Avenue, New York City.

Metropolitan Life Insurance Company—Industrial Department

Claims Paid During Specified Months of 1918, 1919 and 1920, per 1,000 Policies in Force (Annual Basis)



Claim Rates per 1,000

Month	1918	1919	1920
Jan.	13.8	19.1	10.5
Feb.	12.6	17.7	16.0
Mar.	14.3	15.7	15.8
Apr.	14.4	13.2	11.1
May	12.9	11.2	9.5
June	10.5	9.8	9.8
July	10.1	9.2	8.4
Aug.	10.1	8.3	8.4
Sept.	9.6	8.4	7.9
Oct.	18.2	8.2	8.3
Nov.	38.9	8.6	8 5
Dec.	22.4	9.1	